had been scouting for ways to develop new health and beauty products to sell to an increasingly aged population in Japan, according to Tatsuya Ozawa, the company's general manager and director of product development. Shiseido also found the Harvard connection appealing because, "We want to establish an international research network," he says.

Under the agreement, Shiseido can only serve as an adviser at the new center, a stricture that was at first hard for the company to swallow. Parrish said that when he initially approached Shiseido last year to bankroll the project, company officials "wanted a much stronger say in the research." Parrish says it took a year to "educate them" on why it was better that they didn't.

From Harvard's point of view, of course, it wasn't simply better, it was essential that there be barriers between the funding body and those doing the research. A decade ago, Massachusetts General became a bellwether for academic-industry collaboration when it signed a $70-million cooperative agreement with the German company Hoechst AG. At the time, news of Hoechst's grant to MGH-Harvard raised cries of protest among academics who feared that academic scientists were about to sell their soul to industry.

Now there's wide agreement that the $70-million grant from Hoechst didn't corrupt academic science. Nevertheless, universities, private industry, and the federal government are still struggling to define appropriate relationships among themselves as evidenced by a workshop held on the issue in June by the National Institutes of Health (*Science*, 7 July, p. 23).

As in the Hoechst agreement, the decision-making process at the new skin center will insulate its scientists from corporate meddling, says MGH official Ronald Lamont-Heavers. The company will be limited to an advisory role and the center will be overseen by an eight-member scientific board. Only two of the members will be from Shiseido. Ozawa will serve as the center's associate director, and there will be two other associate directors recruited from outside the university.

Under the agreement, Harvard will hold the patents arising from the joint research and receive royalties. Shiseido will have first rights to an exclusive license to any patents.

While federal research grants are typically for 3 to 5 years, the Shiseido pledge is for a 10-year period, which represents "a surprisingly long-term look at basic research" by a cosmetic company, says Parrish.

■ **MARJORIE SUN**

Wider Use of AIDS Drugs Advocated

The drug AZT can delay the development of AIDS in people who have been infected by the AIDS virus but have not yet begun showing symptoms, according to the results of a clinical trial just released by U.S. health officials. "Now there is a good scientific basis to back up what we have been recommending for some time—that people be tested [for the AIDS virus] and get treatment," says Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases.

The new findings should greatly expand the number of people taking AZT, perhaps to as many as 600,000. There are questions, however, about whether these people will be able to afford the high costs of the therapy. Currently, it costs about $7000 to $8000 per year to treat an AIDS patient. According to a spokeswoman for the drug's manufacturer Burroughs Wellcome Co., company officials do not yet know whether the price will come down if production expands. She points out, however, that the $7000 price tag covers the full dosage of 1200 milligrams per day. At 500 milligrams per day, the effective dose in asymptomatic individuals, the cost should be less than half that.

Until recently, AZT was recommended only for the approximately 40,000 people with full-blown AIDS or advanced "AIDS-related complex." But clinicians and researchers hoped that if AZT could help these very sick individuals it might be even more beneficial for infected people who were still relatively healthy.

The clinical trials are confirming those hopes. Just 3 weeks ago, the NIAID released the results of another study, this one coordinated by Margaret Fischl of the University of Miami School of Medicine, showing that AZT could slow the progression of AIDS in people with very early symptoms. This meant that another 100,000 to 200,000 individuals could benefit from taking the drug.

The number who might benefit grew by an additional 400,000 last week with the release of the latest results, Fauci says. The potential new users are infected with the AIDS virus but remain asymptomatic even though their counts of T4 immune cells have dropped below 500. The virus attacks the T4 cells, and a drop below 500 usually signals a decline in a patient's condition. The normal count is in the range of 600 to 1200.

The current study, led by Paul Volberding of San Francisco General Hospital, is the largest AIDS trial ever conducted. It included 3200 people, approximately 1300 of whom had T4 counts below 500. Those individuals were divided into three equal groups, one of which received a placebo, the second a low AZT dose (500 milligrams a day), and the third a high AZT dose (1500 milligrams per day). The end point for the study was progression to AIDS or severe AIDS-related complex. An analysis of the data conducted on 16 August provided a conclusive result: "A person was twice as likely to progress on placebo as he was on AZT," Fauci remarks.

Researchers were especially gratified by the finding that the low dose worked as well as the high dose. In the placebo group, 38 people got worse, compared to only 17 in the low-dose group and 19 in the high-dose category. Many patients with advanced AIDS cannot take AZT because of the severe side effects that it causes in them. But this may not be a problem for people who begin taking the drug before symptoms begin. The side effects were mild in asymptomatic individuals, limited to nausea in about 3% of those who took the lower dose.

On learning the good news, NIAID officials immediately stopped the portion of the trial that included people with T4 counts below 500 so that those in the placebo group could also begin taking AZT. Meanwhile, the study continues for those with T4 counts above 500, as there is not yet enough data to tell whether the drug slows AIDS progression in these people as well.

Reports that the AIDS virus can become resistant to AZT have raised concerns that the drug can lose its effectiveness and lead to the clinical deterioration of individuals who take it. But Fauci says that this should not prevent an asymptomatic person from taking AZT. "If you weigh the benefits of delaying the disease against the risk of developing resistance," he explains, "the analysis comes down heavily on the side of delaying the disease." At present, no one knows just how long AZT will remain effective in asymptomatic patients, but at the very least it may buy time for them until more effective AIDS drugs can be developed.

Trials of several promising candidate drugs are in progress, and they will continue. AZT is "absolutely not" a cure for AIDS, Fauci says. For ethical reasons, however, the other trials may have to be modified so that people who qualify for AZT under the new recommendations can get it. One study of AZT in infected, asymptomatic hemophiliacs has already been terminated, according to Daniel Hoth, the director of the AIDS Clinical Trials Group of NIAID, and the drug has been offered to the control group members.

■ **JEAN L. MARX**